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IMPLEMENTATION PROGRESS OF MENTAL HEALTH SERVICES IN RWANDA

Bugesera District case

MASTER'S DISSERTATION IN MENTAL HEALTH POLICY AND SERVICES

By

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Resumo

O Ministério da Saúde do Governo do Ruanda identifica a saúde mental como uma área de prioridade estratégica para a intervenção em resposta à alta carga dos transtornos mentais no Ruanda. Ao longo dos últimos 20 anos após o genocídio, o sector público reconstruiu sua Resposta Nacional de Saúde Mental com base no acesso equitativo aos cuidados, através do desenvolvimento de uma Política Nacional de Saúde Mental e novas estruturas de saúde mental. A política de Saúde Mental do Ruanda, revista em 2010, prima pela descentralização e integração dos serviços de saúde mental em todas as estruturas nacionais do sistema de saúde e ao nível da comunidade.

O presente estudo de caso tem como objetivo avaliar a situação do sistema de saúde mental de um distrito típico de uma área rural no Ruanda, e sugerir melhorias, incluindo algumas estratégias para monitoras as mudanças. Os resultados do estudo permitirão ao Ruanda reforçar a sua capacidade para implementar o Plano Nacional de Saúde Mental ao nível dos distritos. O relatório também será útil para monitorar o progresso da implementação de serviços de saúde mental nos distritos, incluindo a prestação de serviços de base comunitária e a participação dos usuários, suas famílias e outros interessados na promoção, prevenção, assistência e reabilitação em saúde mental.

Este estudo também procurou avaliar o progresso da implementação dos cuidados de saúde mental a nível descentralizado, com vista a compreender as implicações em termos de recursos desses processos. Foi realizada uma análise situacional num local do distrito, baseado em entrevistas com as principais partes interessadas responsáveis, usando o Instrumento de Avaliação de Sistemas de Saúde Mental da Organização Mundial da Saúde (WHO-AIMS).

Os resultados sugerem que os recursos humanos para a saúde mental e serviços de base comunitária de saúde mental no distrito continuam a ser extremamente limitados. Os profissionais de saúde mental são adicionalmente limitados na sua capacidade para oferecer intervenções de emergência a pacientes psiquiátricos e garantir a continuidade do tratamento farmacológico a pacientes com condições crônicas. Para planejar efetivamente, de acordo com as necessidades da comunidade, sugerimos que o sistema

de saúde mental deve envolver também os representantes das famílias e dos usuários no processo de planificação de modo a melhorar a sua contribuição no processo de implementação das atividades de saúde mental.

Este estudo de caso do Distrito de Bugesera oferece a primeira análise de nível distrital dos serviços de saúde mental no Ruanda, e pode servir como uma mais-valia para a melhoria do sistema de saúde mental, incluindo a advocacia para a melhoria da qualidade dos cuidados de saúde mental a este nível, aumentando o financiamento para a implementação de serviços clínicos de saúde mental e os recursos humanos disponíveis para a prestação de cuidados de saúde mental, principalmente a nível dos cuidados primários.

Palavras-Chave: Políticas e Legislação, Financiamento, Advocacia, Recursos Humanos, Serviços de Saúde Mental, Cuidados primários.

Abstract

To deal with the high burden of mental health disorders resulting from consequences of the 1994 genocide against Tutsis, the Rwanda Ministry of Health (MoH) considers mental health as a priority intervention. For the last 20 years, Ministry of Health focused on rebuilding a national and equity-oriented mental health program responding to the population needs in mental health. Mental health services are now decentralized and integrated in the national health system, from the community level up to the referral level.

This study assessed the situation of mental health services in one rural district in Rwanda. It was aimed at assessing the progress of implementation of mental health care at the decentralized level, focusing on resource implications and processes.

This study is based on interviews conducted with key stakeholders, using the World Health Organization's Assessment Instrument for Mental Health Systems (WHO-AIMS).

Findings show that human resources for mental health care and community-based mental health services of the assessed district remain extremely limited. Mental health professionals face limitation regarding the ability to provide emergency management of psychiatric patients and to ensure continuity of psychopharmacological treatment of patients with chronic conditions.

To improve the implementation process of mental health interventions and activities, a planning process based on community needs and the involvement of representatives of families and users in planning process should be considered.

The Bugesera case study on the situation of mental health services can serve as a baseline for improvement of the mental health program in Rwanda, in terms of quality care services, infrastructure and equipment, human and financial resources.

Key-Words: Mental Health Services, Policy and Legislation, Financing, Advocacy, Human Resources, Primary Care.

DEDICATES

To my husband Richard and my three daughters Delphine, Cindy and Meghane

To my family, brothers and sisters and regret parents

To my colleagues and friends

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ACRONYMS

BD : Bugesera District

BDH : Bugesera District Hospital

CHW : Community Health Workers

DH : District Hospital

DHS : Demographic Health Survey

EDPRS: Development Poverty Reduction Strategy

GN : General Nurse

GDP : Gross Domestic Product

GOR : Government of Rwanda

GP : General Practitioner

HC : Health Center

HMIS : Health Management Information System

HSSP : Health Sector Strategic Plan

LEM : List of Essential Medication

MH : Mental Health

MHN : Mental Health Nurse

MHU : Mental Health Unit

NISR : National Institute of Statistic of Rwanda

PHC : Primary Health Care

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INTRODUCTION

Country context

1. Demographic and geographic situation

Rwanda is a small mountainous and land locked country of 26,338 square kilometers and lying just south of the equator with an average elevation of 1,700 meters. Rwanda is a nation of almost eleven million people in East Africa bordered by Uganda, Tanzania, Burundi and the Democratic Republic of the Congo (NISR, 2012). The climate is temperate, with two rainy seasons each year, February to April and September to December. Approximately 35 percent of the land is fit for cultivation.

Rwanda's population is growing rapidly, with implications for the demographic structure of the country. The most recent population census conducted in 2012 estimated the population to be around 10.5 million people. The population density is the highest in Sub-Saharan Africa (416 inhabitants per square kilometer). The population is essentially young, with 52 percent of all Rwandans under the age of 20. In terms of gender, the 2012 census shows females to be in the majority (52 percent) while males make up 48 percent of the population (NISR, 2012).

Between the two DHS of 2005 and 2010 the illiteracy rate declined from 34 percent to 15.5 percent among women and from 24 percent to 10.3 percent among men.

There are three official languages in the country. Kinyarwanda is the predominant language of local business, while French and English are more professional languages. The largest religious group is Christian.

The country is included in the lower income group based on World Bank 2004 criteria. The unemployment rate was estimated at 25.5% in September 2006 (http://www.statssa.gov.za/keyindicators/keyindicators.asp).

OBJECTIVES

The principal objective of the study is to;

Collect the essential information on mental health services in one rural district of Rwanda (Bugesera District).

Specifically, the study will reinforce the existing MH information system and facilitate the monitoring of implementation of reform of mental health services.

CHAPTER I: INTRODUCTION

1. BACKGROUND OF MENTAL HEALTH IN RWANDA

HEALTH SYSTEM BACKGROUND

1.1. National Health Policy

In the last 15 years, the Government of Rwanda (GoR) successfully designed and implemented a broad set of policies and programs of economic reform and decentralization to enhance local capacity. GoR has recently developed a new "Economic development and poverty reduction strategy" (EDPRS 2) as mid-term plan for implementation of Rwanda's "Vision 2020" which will make Rwanda a lower-middle-income country by 2020.

Rwanda is committed to the international and regional agreements for which it is a signatory such as the Millennium Developments Goals (MDGs) and is on track for achieving most of the targets set for 2015. The health sector contributes directly to achieving five of the eight goals which are: (i) Eradicate extreme poverty and hunger, (ii) reduce child mortality, (iii) improve maternal health, (iv) Combat HIV/AIDS, Malaria and other diseases, (v)ensure environmental sustainability.

New global objectives will be determined for the next period after 2015 and Rwanda will continue to use these international goals to guide its development efforts.

To reach these national and international goals, Rwanda has decided to update the Health sector policy developed in 2005, and to align the Health sector strategic plan (HSSP III 2012-2018) to this new policy.

1.2. Socio-economic situation

Efforts have been made to develop the service sector and stimulate investment in the industrial sector; however, the Rwandan economy remains dominated by agriculture.

In 2010, the service sector accounts for the largest share of Rwanda's Gross Domestic Product (GDP), roughly 50 %, followed by agriculture with 33 % and industry with 17 %. (6)

The health sector has a crucial role to play in the achievement of the national mid-term goal of 11.5% economic growth rate. Continuous progress in the coverage and quality of health care services and in the health behaviour of the population ensure improvements in the health

status and productivity of the Rwandan workers. Health services, as an important element of the service sector, thus contribute in a decisive manner to the generation of collective wealth.

According to the Ministry of Finance in the fiscal year 2010-2011 GDP Growth was 8.1% and the GDP per capita was $562. The percentage of people living below the poverty line was 44.9% in 2010-11, down from 56.7% in 2005-06. In 2010-11, net primary school and secondary school attendance were respectively at 91.7% and 20.9%. The percentage of people having access to safe drinking water was 74.2%, while only 10.8% of people had access to electricity for lighting. (7)

1.3. Human Resources for Health (HRH)

In 2013, there were 678 doctors and 9,448 nurses/midwives working in Rwanda. Based on 2010 data from the Human Resources Information System (HRIS), this corresponds to a ratio of 1 doctor per 16,046 inhabitants, 1 midwife per 18,790 inhabitants and 1 nurse per 1,227 inhabitants. (3)

Specialized physicians represent a small portion (24%) of the total number of physicians in clinical practice in the country. Additionally, they are mainly located in and around the capital city Kigali; whereas 76% of general practitioners are distributed in District hospitals in the rural area. The process of continuous learning for graduates to have specialization at all levels of health professional cadres is still low (A0/A1 nurses represent 31% of all nurses including the psychiatric nurses who manage principally mental health services in health facilities, and specialized physicians 24% of all physicians). The objective is to have human resources with Masters Degrees for different competencies in the health system. The HRH quality improvement targets both health care providers and health managers.

Capacity building of CHWs is in process to improve cost-effective health care delivery at the community level. The role of CHWs is increasing and considered as a priority in strengthening the mental health community based services.

1.4. Health Financing

Over the last few years, Rwanda has developed a comprehensive financing framework with two main channels for financing, one from the supply side, transfers from the treasury to districts and health facilities and one from the demand side, the insurance system.

Government agencies such as the Ministry of Health and Rwanda Biomedical Center manage 47% of health funds. Risk pooling has been greatly improved as a result of the extension of community-based health insurance schemes which allow the majority of the population access to health care services and drugs. Social and private health insurances now cover approximately 92% of the population. Mental health care and psychotropic medication is included in the health care services covered.

Other pooling mechanisms are important for efficient management of drug procurement, performance-based financing (PBF) and CHW cooperatives.

For Financial accessibility to health care services the population is classified in the Ubudehe categories which are the local government system of categorizing population according to their social and economic cluster aiming to increase wellbeing and providing direct support to the population (**Ministry of local government, 2013**). The Ubudehe category determines the amount of the contribution of households to the Community based health insurance (Mutuelles). The government pays the full contribution for the poorest.
Mutuelles is a community based health insurance program, established since 1999 by the Government of Rwanda as a key component of the national health strategy on providing universal health care.

1.5. Health Service delivery

The Rwanda health system comprises a network of five referral hospitals including the single neuro-psychiatric hospital in the country, 43 district hospitals, and 450 health centres.

In addition, the emergency medical assistance service (SAMU), are mainly providing ambulances with first aid and conduct transfers of patients to health facilities. The service is now fully operational in all districts with 154 ambulances (five ambulances in each district the standard requirement fitted with tracking systems) and a call centre managing the flow of transfers including mental health cases.

Emergency Departments have been constructed in most referral and DHs and a Pre-Hospital Emergency Care Service has been established.

Implementation of the community health services package has been one of the greatest innovations in integrated decentralization of health services including mental health services.

The Rwandan health system has greatly benefited from task shifting in which Community Health Workers (CHWs) are delivering primary health services at the community level.

This has relieved the workload at health centres and has reduced patients' travel costs to reach health centres. It is estimated that the community level deals with approximately 80% of the total disease burden and has to be appropriately strengthened. (3)

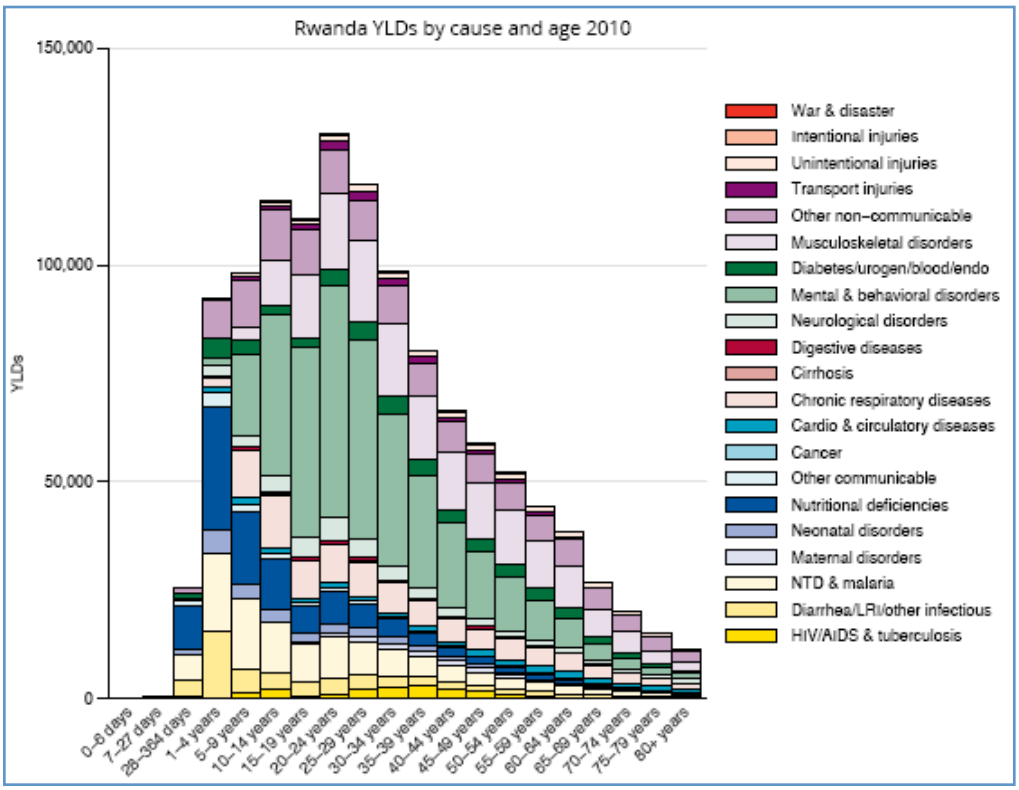
Rwanda's health care system is organised along the principles of primary health care and services are provided at different levels: community, health centers, district hospitals, and referral hospitals. Health Center is the first contact point for patients from villages, and also coordinates all outreach and prevention activities held at the community level, carried out by community health workers (CHWs).

1.6. Health Information System

The Health sector Monitoring and Evaluation System is primarily divided between health facility-based and community-based components of monitoring and evaluation of health interventions.
A community based information system has been introduced throughout the country. The Health Management Information System (HMIS) integrate indicators of mental health and is regularly monitored and analysed by mental health professionals for evaluation of needs and best planning.

1.7. Mental health background

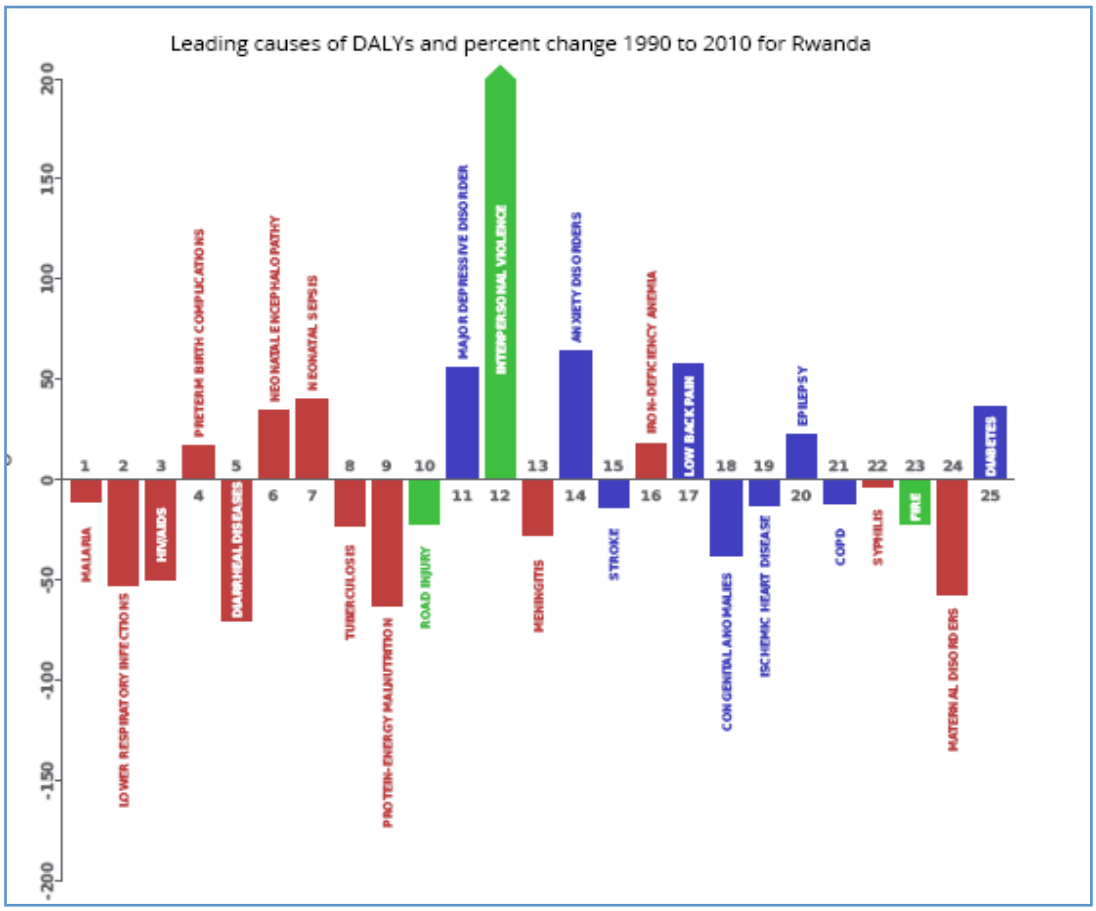
Rwanda faces an exceptionally large burden of mental disorders. The top five leading causes of YLDs (Years lived with disability) in Rwanda include two mental health disorders. Indeed, the top five leading causes of YLDs in Rwanda are major depressive disorder, anxiety disorders, iron-deficiency anaemia, low back pain, and chronic obstructive pulmonary disease. YLDs are estimated by weighting the prevalence of different conditions based on severity.



GBD profile: Rwanda (Global burden of diseases, injuries, and risk factors study 2010 http://www.healthmetricsandevaluation.org)

In Rwanda, the percentage change of causes of Disability-adjusted life years[1] (DALYs) between 1990 and 2010 shows an increase of three neuropsychiatric disorders in the five first causes: anxiety disorders, major depression and epilepsy.

[1] Disability-adjusted life years (DALYs) quantify both premature mortality (YLLs) and disability (YLDs) within a population.



GBD profile: Rwanda (Global burden of diseases, injuries, and risk factors study 2010 http://www.healthmetricsandevaluation.org)

Rates of depression and post-traumatic stress disorder among adults remain high and have been reported at levels that far exceed international averages. Much of the country's burden of mental disorders can be traced back to the genocide in 1994, which resulted in the deaths of more than one million people and untold additional disability and suffering. Physical devastation aside, the emotional and mental implications were and continue to be incalculable. Up to one in four adults is estimated to suffer from post-traumatic stress disorder (PTSD) and prevalence of major depression was estimated to be as high as 15.5% (10). In response to the burden of mental disorders, the government of Rwanda, Ministry of health has developed strategies to provide people-centred services for all with mental health problems. In fact, over the last 20 years, the public sector has rebuilt its national mental health response based on equitable access to care. Rwanda developed its first national mental health policy in 1995. By 2005, mental health was identified within the health sector policy as a priority area for intervention. (3) This policy also called for the integration of mental health services in all national health system structures and at the community level. Several clinical education

programs for mental health and general professionals have been implemented, and dedicated referral facilities have been established. Decentralized hospitals and health centers across the country are now capacitated to provide mental health care.

In terms of the organization of mental health care, there is a Mental Health Division within Rwanda Biomedical Center in the Ministry of Health. The Mental Health Division is composed of three main units: the psychiatric care unit, community interventions and promotion unit, substance abuse prevention and control unit. The staff comprises a total of eleven professionals.

Its mission is to implement the mental health policy through a strategic plan under the guidance of the Health Sector Strategic Plan. (2)

1.8. Mental health policy

The first national mental health policy was developed in 1995 and reviewed in 2011 using an intensely participatory and consultative process. (Ministry of Health 2011) The revised mental health policy includes a problem statement, specific objectives and the priority intervention areas (see Box 1 for a summary of the main intervention areas). In general, the values and principles developed in the policy promote human rights, community-based approaches and intersectoral collaboration. The policy highlights the need for mental health legislation that upholds the rights of people with mental health problems and that establishes a legal framework in mental health care practice. A proper analysis of the document found that the principles of primary health care are emphasized.

Box 1: Key interventions of the national mental health policy (2011)

1) Decentralization and integration of mental health care into primary health care, and promotion of community-based approaches
2) Integration of mental health care into community-based health insurance (CBHI), and support for the availability of psychotropic medicines
3) Improving the quality of mental health care
4) Sensitizing on mental health issues and fighting stigma
5) Developing human resources in mental health
6) Promoting human rights and drafting a mental health law
7) Development of specific programmes according to the epidemiological context: PTSD, drug abuse, epilepsy and child and adolescent mental health

According to the current mental health policy, the Mental Health Division of the Ministry of Health has initiated a series of policy actions:

- ✓ Provision of trained mental health nurses to all District Hospitals (43)
- ✓ Provision to each district of at least one general medical doctor and one general nurse trained in MH;
- ✓ Provision of training in MH to HC nurses (currently about one third have nurses trained in MH)
- ✓ Provision of mental health training to CHWs
- ✓ Development of mental health legislation

Within this framework, the Mental Health Division priority strategies and interventions include:

- ✓ Strengthening the integrated mental health care model within the health system:
- ✓ Initiating referral mental health services in future provincial hospitals;
- ✓ Providing mentorship in mental health services in DHs, provincial hospitals, and specialized institutions;
- ✓ Developing protocols and guidelines for treatment of MH problems and community psycho-social rehabilitation;
- ✓ Providing psychotropic drugs in all health facilities;
- ✓ Producing and disseminating documentation on mental health issues;
- ✓ Coordinating psychological interventions during commemoration of genocide.
- ✓ Using the CHWs network for community mental health interventions by integrating mental health in the CHWs package of activities in all villages

Recent achievements of the Mental Health Division include:

- ✓ Coordinating psychological interventions during commemoration of genocide against Tutsi,
- ✓ Organizing sensitization campaign of communities and schools against drug abuse,
- ✓ Training mental health professionals and in particular psychiatrists,
- ✓ Initiating training and mentorship of general practitioners and nurses working in all HFs,
- ✓ Organizing specialized training in psychiatry for postgraduate doctors,

- ✓ Developing a master plan of drug abuse prevention and control interventions by initiating treatment and detoxification in specialized services.
- ✓ Using operational research to develop evidence-based interventions,
- ✓ Conducting research on prevalence of mental health issues.

The Rwandan mental health policy called mainly for the integration of mental health services into the health system to assure that services are complete and continuous.

1.9. PROGRESS OF IMPLEMENTATION OF MENTAL HEALTH SERVICES

1.9.1 Mental health resources

There are two referral settings in mental health in Rwanda, all based in Kigali city: The first inpatient neuropsychiatric hospital is in main city at Kigali that offers specialized services for patients with both neurologic and psychiatric disorders. There is also a Mental Health outpatient referral department located at the Kigali University Teaching Hospital (CHUK).

Specific interventions to strengthen the overall health care system have led to the scaling up of district facility referral capacity for mental health care: 44 district hospitals are now equipped with at least 1 mental health nurse. Nearly half of all district hospitals also mobilize a clinical psychologist as part of the district mental health team. Six of them have specific hospital beds for the mentally ill. Two general practitioners and two general nurses from each district hospital are trained each year in psychiatric care to support part time the mental health services. The effort to decentralize and integrate mental health into the PHC system is further pursued by targeted training for nurses of the health centres and for community health workers. All district hospitals are linked to approximately ten to twenty health centres in the community with one up to two general nurses trained in mental health (8)

The number of clinicians trained in mental health care is increasing and training has accelerated in recent years, but many of the clinicians work at the central level and few are practicing in health facilities managed by the Ministry of Health. Others work for non-governmental organizations, international institutions, or local government. A parallel phenomenon is seen among psychiatric nurses: among the 293 trained by 2011, only 140 are currently practicing in the public sector (8).

1.9.2. Health insurance to access mental health care

All mental health care and essential psychotropic drugs are enrolled in Rwanda's community-based health insurance system (*mutuelles de santé*). All insurance premiums and co-payments are fully subsidized for the poorest quarter of the population. Community-based health insurance allows people with mental disorders to pay at most a 10% co-payment for drugs and services

Currently there is 91% enrolment in the *mutuelles de santé* and another 7% of Rwandans covered by civil servant or private insurance as of June 2012. (9)

As a result of these increases in capacity and access as well as the mass sensitization campaigns about mental health issues done twice each year, mental health consultations at health facilities have increased dramatically over recent years. Ate the same time, the transfers from decentralized services to referral services have decreased. (8)

1.9.3. Mental health prevention and promotion

The Mental Health Division organizes an annual national campaign for "World Mental Health Day" based on an internationally chosen topic and adapted to the country context. Other activities and events are organized throughout the year in order to increase awareness within communities of mental health and drug abuse issues. These activities include school education, community sensitization sessions, and radio spots designed to fight against the stigma of mental disorders in society and to sensitize the population to use mental health services and contribute to community interventions for victims.

There is a Mental Health Technical Working Group that meets quarterly to plan, guide and coordinate the implementation of mental health activities. This committee is composed of representatives of public and civil society stakeholders, representatives of mental health institutions and MH education boards for coordinating mental health activities in the country.

The Mental Health Division hosts an annual international conference for mental health professionals and representatives of international institutions to share experiences and best practices of countries, in order to improve the quality of mental health care interventions in Rwanda.

1.9.4. Mental health epidemiological situation

According to the 2008 Global burden of disease study, Non Communicable Diseases represent 17% of the disease burden in 2004 and 4.3% of them are neuropsychiatric conditions (12)

During the post-genocide period, new challenges related to mental trauma problems and their complexity emerged within Rwandan communities. A study conducted in 2009 by Dr. Munyandamutsa and Dr. Mahoro on 981 adults revealed that 79.41 per cent of the total population have experienced in one way or another, traumatic events. The study findings estimate the prevalence of PTSD at 21.6 per cent of the total population. Fifty four per cent (54%) among traumatized people suffer also from depression. (4)

In addition, demand for mental health care increased. For example Table 1 shows the trend of inpatient and outpatient consultations in Ndera Neuropsychiatric hospital, the only one in the country. Outpatient consultations have increased since 2007 from 25830 in 2007 to 37978 in 2012. (8)

Table 1: Evolution of the number of outpatient consultations and hospitalisation at Ndera Neuropsychiatric Hospital

Activity	Year					
	2007	**2008**	**2009**	**2010**	**2011**	**2012**
Outpatient consultations	25830	31125	34951	36392	37644	37978
Inpatient	2917	3463	3278	3416	3332	3452

1.9.5. Treatment and resources in mental health system

The management of mental health problems at the district level is mainly the job of public health facilities. Due to the shortage of psychiatrists in the country, until now the management of mental health patients in health facilities has been shifted to the mental health nurses and clinical psychologists.

As for community based interventions, work is mostly conducted by trained health professionals as well as by non-professional health workers, including community health workers trained in mental health, counsellors, and psychosocial animators. Mental health care packages at all levels and essential psychotropic drugs are fully integrated in community health insurance by level of care.

In order to insure continuously the reinforcement of capacities of mental health staff, the mental health division performs regular clinical supervisions and mentorships from referral mental health services to decentralized services. This is done by a team of mental health experts (psychiatrist, psychologist and psychiatric nurse) on a weekly basis, across all districts. District Hospitals are performing monthly integrated supervisions to Health Centres where they mentored mental health services and captured all data related.

1.9.6. Rehabilitation and social integration

After managing the mental health cases at the district level, and before discharge into the community, mental health professionals design a reintegration and rehabilitation plan based on developing patients' capacities and identification of supporting networks in the community.

After strengthening capacities of patients for reintegration and rehabilitation, social workers along with mental health professionals proceed to the sensitization and education of families, mainly focusing treatment adherence and compliance with the reintegration project and follow-up schedule. It is in this inter sectorial framework that they advocate for effective reintegration of mental health patients and the few cases they followed in the period of study are reported in regular report of hospital.

1.9.7. Monitoring of mental health data

Clinical data of patients are continuously collected during both inpatient and outpatient visits. Diagnoses are based on CDI 10 and DSM IV criteria, and both diagnoses and treatment are recorded. Other information is collected from regular reports and registers of patients attending mental health services in each region and they are reported to national health management information system for analysis and using.

1.9.8. Legislation in mental health

The current mental health strategic plan of 2010-2015 assumes as its priority the development of a mental health law to protect persons with mental health disorders, and to regulate the management and quality of mental health services in Rwanda. The draft law is currently available in the public domain and is in the process of translation and validation. The law will be presented to parliament and cabinet of Ministers for validation between July 2014 and June 2015.

1.9.9. Inter-sectorial collaboration

A Mental health collaboration framework in Rwanda has been built by the National Technical Working Group, comprising stakeholders from national and international NGOs. The group supports the implementation of the government's mental health policy through national mental health programs. The national steering committee meets regularly and is chaired by the head of mental health division/Ministry of Health, which is the advisor entity for mental health policy and for the coordination of its implementation. In parallel with this, there is collaboration between several sectors (youth, education, internal security, justice, etc.) in the field of awareness and the fight against drug abuse and addiction. In this context several awareness campaigns are conducted several times a year in youth related environments, schools, universities, etc. Recently the government has established a project to set up an inter-sectorial committee for the coordination of actions against drugs

There is also collaboration between the Ministry of Health and Ministry of Education in the field of prevention of psychotrauma in schools via districts activities.

The Ministry of Health has also conducted training for nurses working in health centers in prisons in the field of mental health in order to integrate a mental health component in health care for prisoners.

2. Objectives of the study

2.1. General objective

The purpose of the study is to collect information on the implementation progress of mental health services in one rural district (Bugesera district).

2.2. **Specific objectives** were:

- To monitor the progress of implementation of mental health services in Bugesera district settings
- To identify the barriers of the process of implementation of mental health services
- To suggest strategies to improve the plan in remaining districts and region

1.3. Research questions

- What is the progress of implementation of mental health services in Bugesera district?
- What are the barriers of the process of implementation of mental health services in Bugesera district?
- What are the strategies that we could suggest to improve the MH services in Bugesera District?

1.3.1. Study hypotheses

General hypothesis

The process of implementation of mental health services into health system is taking place as planned.

1.4. Significance of the study

Even if there are many actions to increase mental health services capacities in the Rwandan health system, as of yet there has been no evaluation of the process.

The results of the study will help to evaluate the progress of implementation of the mental health services in the overall health system, as well as the barriers toward the process of implementation.

The outcome of the study will also suggest strategies to improve the implementation process all over the country.

WHO-AIMS data should assist Rwanda as a country in developing information-based mental health plans with clear baseline information and targets.

Via this work, Rwanda could be able to monitor progress in implementing reform policies, providing community services, and involving consumers, families, and other stakeholders in mental health promotion, prevention, care, and rehabilitation.

Through the use of the WHO-AIMS, Rwanda will have a clearer and more comprehensive picture of the main weaknesses in their mental health system, and this knowledge should facilitate improvements over time.

The results can also serve as scalable model in decentralization and integration process of mental health programs.

CHAPTER II: METHODOLOGY

2.1. Methodology

The present study uses the English version of the instrument of evaluation for mental health services of the World Health Organization. The World Health Organization Assessment Instrument for Mental health Systems (WHO-AIMS) is a new WHO tool for collecting essential information on the mental health system of a country or region. The goal of collecting this information is to improve mental health systems.

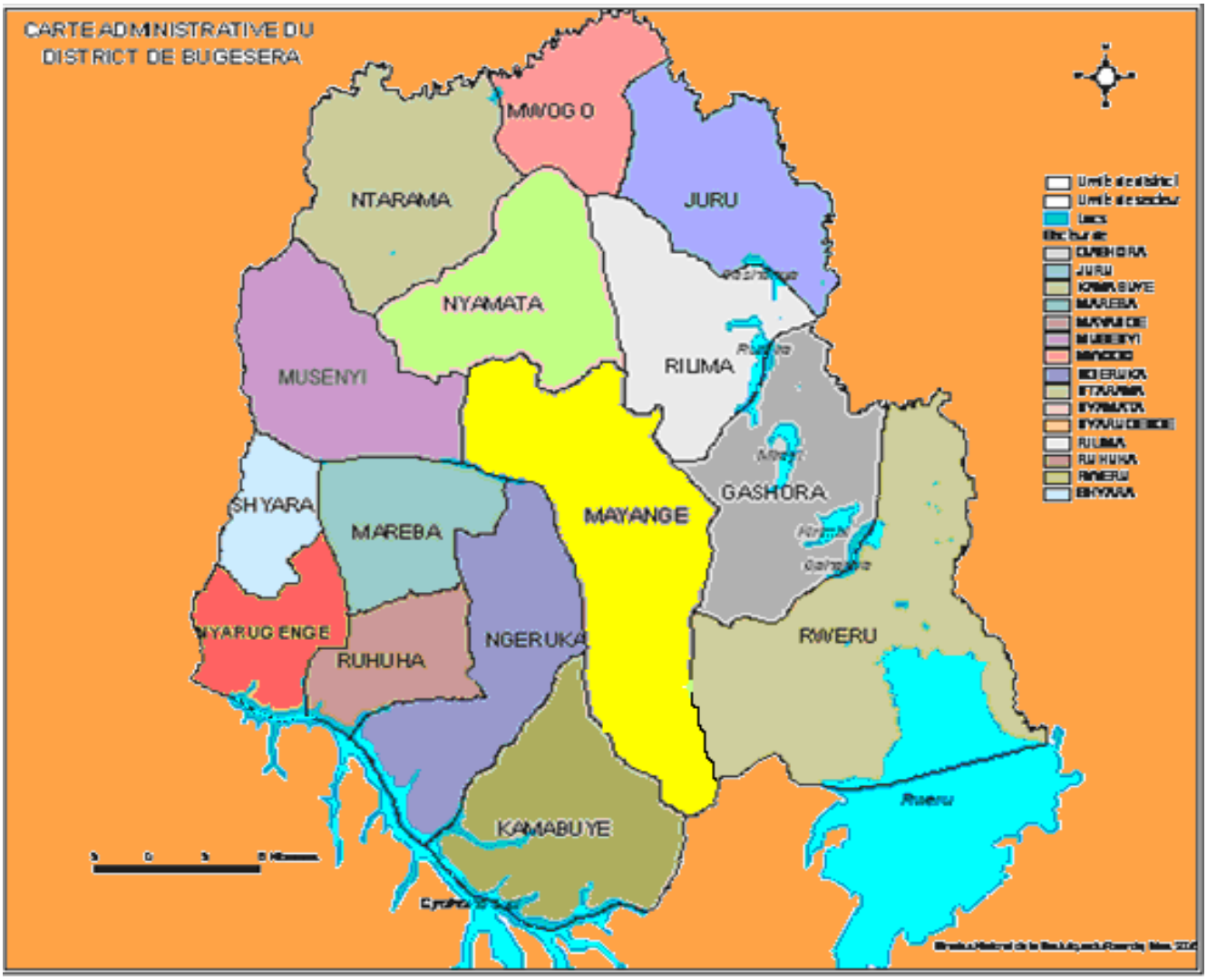
For this study is aimed to analyse the mental health situation in the semi-rural district of Bugesera. The data collection was done at the mental health unit within the general hospital in Bugesera District, along with use of information from local government and stakeholders as needed. Data were collected for calendar year 2013.

The following data management steps were taken:

- Routine data including demographic information, patient diagnoses and treatments administered are currently routinely recorded by district mental health clinicians in their daily register in both the district outpatient mental health clinic and inpatient general hospital. These data were pulled from the registers by me.
- Mental health indicators reported nationally within general district health reports were also used to complete WHO-AIMS.
- Face to face semi structured interviews was performed with mental health and other hospital staff to obtain data required by WHO-AIMS which is not routinely recorded by district health system staff. Interviews were also held with local authorities' heads of social services, education, prison, and other administration entities of the district.
- Data were entered by me into the WHO-AIMS Excel Data Entry program for analysis and elaboration of results

2.2. Characteristics of research site

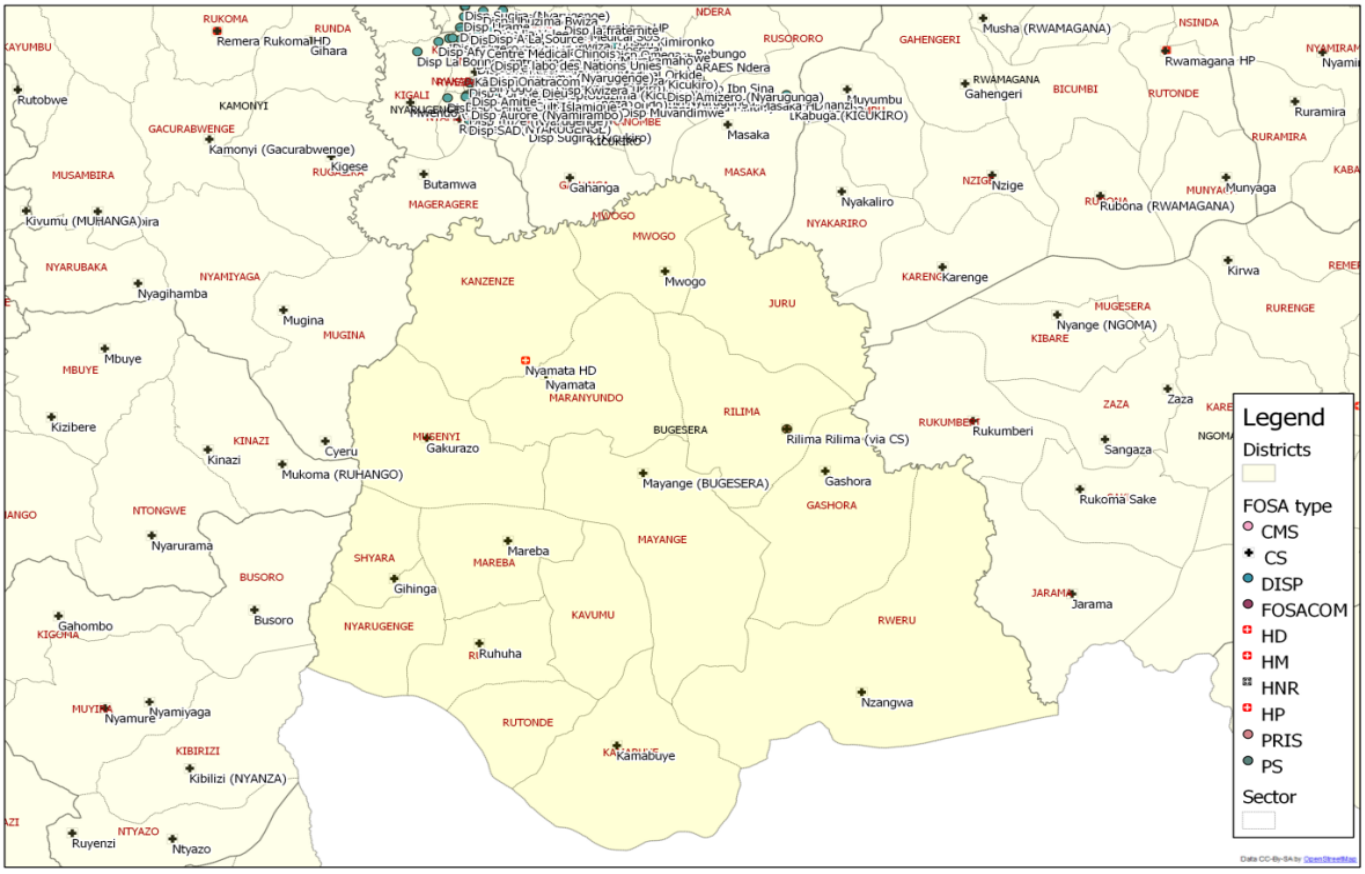
Demographic card



DEMOGRAPHY (PROJECTIONS IN 5-YEARS)

Bugesera District is one of the seven districts that comprise the eastern province of Rwanda. The recent national survey estimated the district population to be 314 892 habitats in 2011 (UBUDEHE 2011). The population represents 15.45% of the entire population of the Eastern province. 47.1 % of them are male and 52, 9 % are female. The accessibility to Community based health insurance in Bugesera District population was around 98 % in 2013(13)

Map of health facilities in Rwanda (2012)



CS: centre de santé (Health center) , **DISP:** dispensaire (dispensary) , **FOSACOM:** Formation Sanitaire Communautaire (Community health facilities), **HD :**Hopital de district (District Hospital), **PRIS:** prison, **HM :** Hopital Militaire (Military Hospital), **HNR :** Hopital National de Reference (National referral Hospital), **CMS:** Centre Medical Social (Social Medical Centre) , **HP :** Hopital Provincial (provincial Hospital , **PS :** Post de Santé (health Post).

2.3. Health Facilities available

The Bugesera District has one district Hospital, Nyamata District Hospital, with one integrated mental health service in the district hospital. The hospital is in the district town area, Nyamata sector. The district has 15 health centers (primary level), each with one or two nurses trained in mental health who can receive mental health cases for preliminary management before transfer to the district hospital.(12) The majority of those HCs are within 30km of the district hospital, which facilitates the access and transfer system. (14) There are about three organizations of community mental health stakeholders working with mental health community based services. Two for orphans and widows of genocide victims and one for youth working in fighting against drug abuse. The local mental health organizations are meeting reguraly at bugesera district hospital for implementation of mental health activities and follow up of patients. The average number of consultations per inhabitant in outpatient

services in one year is 2.2 for women vs 1.4 of men (Which can probably be justified by the using of maternity or family planning services). At the national level, BD is among the top six districts in terms of number of general hospital admissions, with a higher number of admissions for women (117 vs 46). (12)

The source of health financing in Bugesera District hospital is government budget, incomes generating from services delivery, and financial support from partners (local and international NGOs). It is very difficult to estimate the global budget for health because not all sources of funds are reported in the financial reporting system of the district. Nevertheless, the 3 most important domains of expenditure are remuneration of staff, training and supervision, and purchasing of medication and consumables, which represent 94.9 % of all health expenditures each year. (12)

Criteria that contributed to the choice of Bugesera District.

- District located in rural area that offers the mental health services at all levels of health facility.
- Services available from January1^{st,} to December 31st, 2013 and delivered by mental health professionals with or without support of partners.
- Bugesera District has in and outpatient mental health services integrated in the general hospital.

2.4. Instruments

I used the WHO-AIMS volume 2.2 (World Health Organization Assessment Instrument for Mental Health Systems), a valid, cost-effective tool designed to evaluate mental health services in a region or country (13).

The 6 aspects of the instrument relevant to the district-level analysis of the Bugesera district were included: policy and legislative framework; mental health services; mental health in primary care; human resources; public education and links with other sectors; and monitoring and research.

2.5. Variables

The WHO-AIMS instrument comprises 156 items grouped into 6 domains, including demographic and service use variables such as: sex, age of patients attended, diagnosis according to the DSM-4 scale, time spent during hospitalization, type of admission, patients registered/isolated, access to psychotropic medicine, human resources in MH, inter sectorial collaboration, existing social support to patients and monitoring, prevention and promotion programs in Mental health.

The number of variables has been analysed and presented by regrouping the items of the AIMS-WHO tool domains.

The analysis has been done by regrouping the results in 6 domains of the tool like: related to policies, legislation, strategies and action plans and funding; mental health services; primary care; human resources and liaison with other key sectors in presentations of data and easy analysis of data.

2.6. **Adaptation, translation, back-translation procedures**

The English versions of WHO- AIMS volume 2.2 (WHO 2005a) was used as English is one of two professional languages in the country. The French version was referred to if needed for clarification.

2.7. Analysis plan

For analysis of data collected, I used the WHO-AIMS Excel Data Entry Program and analysis software, which performed automatic percentage calculations. In addition, descriptive statistics was used to complete analysis (e.g.: to analyse the financial estimation of mental health services expenditures and all health expenditures in BD).

CHAPTER III: RESULTS

Introduction

This study aims to find the essential information on progress implementation of mental health services of Bugesera district hospital. Health professionals, representative of families, local authorities and four patients were interviewed:

1- The director of the unit of psychiatric care in the national mental health division, who is coordinating the process of implementation of mental health policy in decentralized levels, PHS and PHD in Mental health nursing
2- Two psychiatric nurses working for mental health services in BDH, who have worked for the service at least in the last two years,
3- Two representatives of patients' families, attending the support groups of the BDH,
4- Four patients (2 new cases and 2 follow up cases),
5- Director of BDH, MD, MPH
6- Financial Manager of BDH, Accountant
7- Vice mayor, in charge of social affairs, health, education and vulnerable groups support at the Bugesera district, Social worker
8- Head of health centers in Bugesera district, MPH
9- Data manager and Monitoring and evaluation officers of BDH, Statistician and MPH

After presenting the concept of the research, the purpose of the study and the key questions which are in the tool, the interviewees were recruited by the principal author.
The interviews were semi structured and individual, and occurred face to face. At the beginning of the interviews, the participants were briefly introduced to the concepts of the AIMS-WHO tool used. Then they were asked to discuss their views and answers. For some questions they used their regular reports and hospital database.
In addition, all participants were asked to discuss particular issues and to express their opinions about what can be done to improve the process of implementation of the mental health policy.

DOMAIN 1: POLICY AND LEGISLATIVE FRAMEWORK

3.1.1. Policy, Plan and Legislation

The Mental Health Plan in the Bugesera District is based on the national mental health policy, reviewed in 2011. The relevant priorities of that policy are: provide Mental Health Services and insure effective, coordinated mental health care through the enhancement of education, capacity building at various levels and inter-sectorial collaboration in order to improve access to the services end quality of treatment for Rwanda people with mental disorders.

The current policy aims to reinforce the following interventions within the district: (1) decentralization of mental health care and integration of mental health care into primary health care; (2) strengthening of human resources; (3) rehabilitation and reintegration of mental health patients; (4) advocacy and promotion; (5) protection of human rights of patients; (6) improvement of quality of mental health services; (7) monitoring and evaluation.

Planning for service delivery is the responsibility of districts. For Bugesera district, they have a district strategic plan and yearly DH operational health plan, including mental health services as a priority component. For community mental health services, mental health services are included within these general health plans. The district uses the national list of essential psychotropic medicines. These medicines include antipsychotics, anxiolytics, antidepressants, mood stabilizers, antiepileptic drugs and others.

There is a draft of mental health legislation (the Mental Health Care Act) currently in process of validation at the national level, which will eventually be implemented in Bugesera district.

The review boards are planned to be established when the law reaches implementation phase. However, there is currently no specific mental health law within the district. There is also no official emergency/disaster preparedness plan for mental health at either the national or district level.

However, the psychosocial services for refugees are integrated in the national emergency interventions package availed by ad hoc national multisectorial steering committee of Ministry of Disaster Management and Refugees Affairs in Rwanda (MIDMAR, 2013).

3.1.2. Financing of Mental Health services

The budget dedicated to mental health is fully integrated into the overall budget for health at district level. The total budget is expressed in areas of expenditure by integrated and global fields (e.g. purchasing medications, salaries or remuneration, capacity building of staff…). So, it is very difficult to know the exact amount specifically dedicated to mental health.

In this study, the estimation of mental health expenditure in Bugesera District is limited to expenditures on mental health at the district hospital. Expenditures on mental health in health centers and other structures at the community level are not available. Expenditures reported by the district hospital do not include the running cost and maintenance of the mental health unit. Note that the local community health insurance scheme supports up to 90% of expenses related to the outpatient consultation, inpatient care, transfers to the referral mental health facilities and medicines.

Table 1: Estimated mental health expenditures in 2013 - Bugesera District Hospital 2013

Category	Amount in USD	%
Salaries (2 mental health nurses)	7377	7%
Inpatient Mental Health	17196	17%
Transfers to mental health referral settings	2133	2%
Outpatient Mental Health Care	22080	22%
Psychotropic medicines	28219	28%
Clinical supervision of health centres	6400	6%
Mentorship	667	1%
Training of CHW's	11167	11%
Training of General nurses of HC's	6167	6%
Total in USD (1USD=600 RFW)	101405	100%

In Bugesera district Hospital, the expenses with mental health services in 2013 are estimated at 99 272 USD, which corresponds to 3.8 % of the general health budget of the Bugesera district. The largest expenditures correspond to purchasing psychotropic drugs, outpatient care and hospitalization, followed by capacity building of health professionals.

Figure 1: Estimated mental health expenditures in 2013 - Bugesera District Hospital 2013

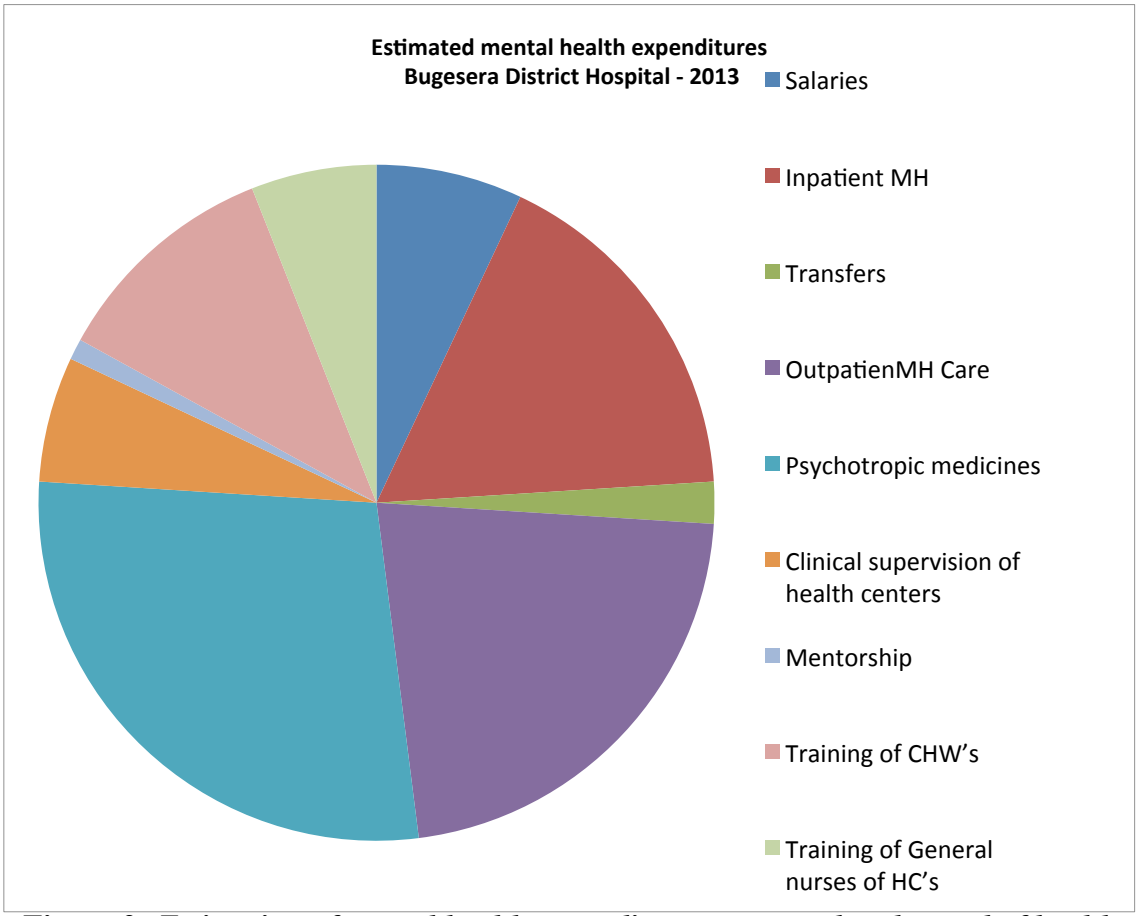
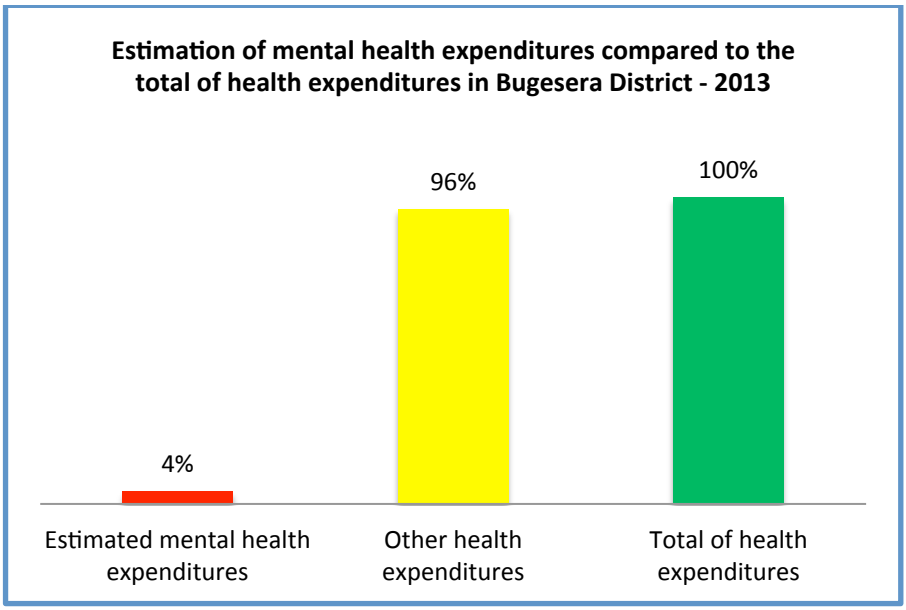


Figure 2: ***Estimation of mental health expenditures compared to the total of health expenditures in Bugesera District Hospital - 2013***



DOMAIN 2: MENTAL HEALTH SERVICES

3.2.1. Organization of mental health services

Mental health services are organized in terms of district catchment areas throughout the country. At the central level there is a mental health division.

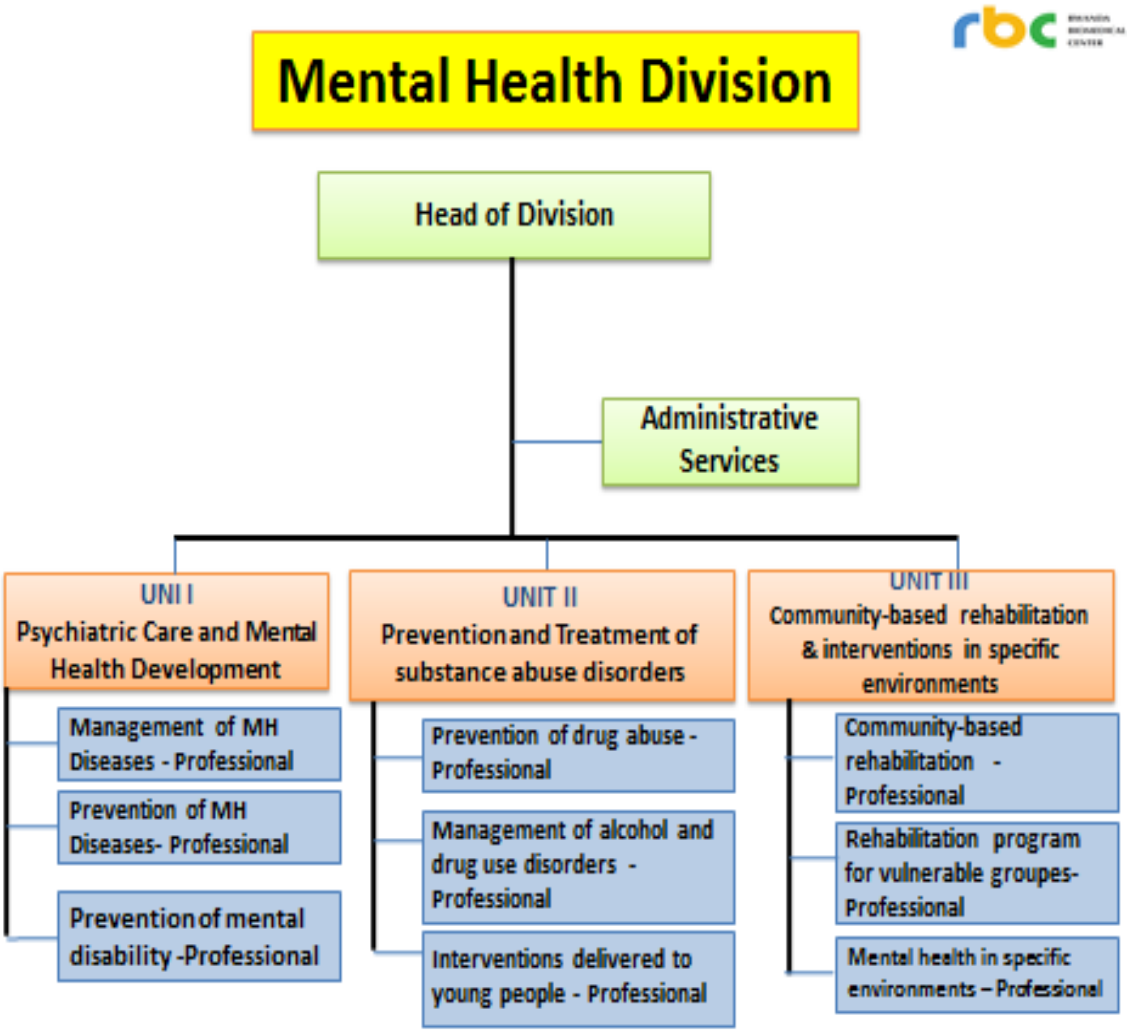
The Division of mental health is located at the Ministry of Health and is in charge of developing and implementing health policies, plans, and legislation, both in the area of mental health and drug use related problems, by ensuring regulation and coordination of mental health services across the country. In terms of implementation this entity also has an important role ensuring the integration of mental health services into primary care and decentralized community based services.

The Mental Health Division comprises a Head of division and includes three units managed by three directors of units:

- Unit I: Psychiatric care and mental health development,
- Unit II: Prevention and treatment of substance abuse disorders
- Unit II: Community-based rehabilitation and interventions in specific environments

Within each unit there are two professional specialists (psychiatric nurses and clinical psychologists and one crosscutting technical assistant (psychiatrist). the directors of the units in charge of topics assigned to each unit (see the figure below). In addition, the Mental Health Division includes a data manager and an administrative staff.

The Mental Health Division, through its three units, provides policy direction to the mental health stakeholders and health authorities, who are involved in service planning, service management and coordination; and monitoring and quality assessment of mental health care with support from mental health experts from clinical referral services.



Mental health structure, Rwanda Biomedical Centre /Ministry of Health

(2014, RBC report)

For Bugesera District, all the resources and the budget for mental health services are integrated into the overall budget of district. Therefore this study includes district indicators where these are available.

3.2.2. Mental health Outpatient facilities (Outpatient mental health services unit in general Hospital)

In Bugesera District there is a mental health department located in the general District hospital. The department performs outpatient consultations and inpatient services in one mental health unit.

In 2013, Nyamata DH Mental Health Unit has performed 3312 consultations, among them 246 (7 %) were new cases and 3066 (93%) were follow up cases. The average is 276 consultations per month.

Among the new cases 81 (33%) were children less than 15 years. Among the adult new cases 74% are female and 26% are male.

Among the follow-up consultations 32.39% were children under 15 years. 50.41% are female cases and 49.59% are male cases.

The diagnoses are reported by categories according to the HMIS data base tool (the national general health data collection instrument). For new cases, the data show a predominance of epilepsy (65 %), followed by schizophrenia and other psychoses (20%). For the follow-up consultations the data again show a predominance of epilepsy (64 %), followed by schizophrenia and other psychoses (30%).

3.2.3. Diagnosis of new mental health cases received in Outpatient Services -
Bugesera District Hospital - 2013

Diagnosis	Number	%
Epilepsy	160	65%
Schizophrenia and other psychoses	49	20%
Psychosomatic problems	16	6%
Depression	9	4%
Neurological problems	5	2%
Other Psychological problems	5	2%
Post-traumatic stress disorder	2	1%
Total	246	100%

3.2.4. Diagnosis of mental health cases followed up in Outpatient Services
-Bugesera District Hospital - 2013

Diagnosis	Mental cases received	%
Epilepsy	1950	64%
Schizophrenia and other psychoses	920	30%
Depression	92	3%
Psychosomatic problems	61	2%
Neurological problems	31	1%
Other Psychological problems	12	0,40%
Post-traumatic stress disorder	0	0%
Total	3066	100%

The most frequent diagnosis for both new visits and follow up visits in mental health outpatient services is epilepsy, followed by schizophrenia.

The rate of visits performed by the mental health unit was 1052 per 100000 habitants. The average number of contacts per user was 12.

The Mental Health Unit of BDH doesn't provide data of routine follow-up of community care for patients received in outpatient mental health services. Those data are reported in the individual case files and are not kept in the general report of the district hospital.

Psychosocial interventions are integrated in the mental healthcare package provided by the Mental Health Unit in Bugesera District Hospital. According to the interview with the mental health nurse in charge of the mental health unit, almost all of patients (81 to 100%) have received one or more psychosocial interventions in inpatient mental health care and the majority (51 to 81%) have received one or more psychosocial interventions in outpatient mental health services.

The Mental Health Unit had at least one psychotropic medicine of each therapeutic class (anti-psychotic, antidepressant, mood stabilizer, anxiolytic, and antiepileptic medicines) available in the facility or a near- by district pharmacy all year round. (**Table on page 33**)

3.2.5. Day treatment facilities

There are no day treatment facilities available in Bugesera District and there is no specific department for children and adolescents.

3.2.6. Health Centers

There are 15 primary care health centers which offer primary care services, including mental health care. However, services are not extensive, with 15 health centers reporting only 58 cases with a psychiatric diagnosis according the HMIS data base, which represents 0.3 % of all cases received in the Health centers. Health centers Mental Health Data are not disaggregated by gender or diagnosis, but are compiled together as either epilepsy or a mental disorder. The diagnoses reported are classified as following:

Table 2: Diagnoses of new mental health cases received in Health Centers - Bugesera District - 2013

Diagnosis	Number	%
Epilepsy	4	100%
Psychological/Mental problems	0	0
Total	4	100%

Table 3: Diagnoses of mental health cases followed up in Health Centers - Bugesera District - 2013

Diagnosis	Number	%
Epilepsy	36	67%
Psychological/Mental problems	18	33%
Total	54	100%

3.2.7. Community-based psychiatric inpatient units

(Psychiatric inpatient unit in general hospitals)

There is one community-based psychiatric inpatient unit available in Bugesera District at the District hospital, with a total of 3.8 beds per 100,000 population. The proportion of psychiatric beds in Bugesera district Hospital is 9% of all beds (12 beds/134 beds).

There are no specific beds in the inpatient unit reserved for children and adolescents. The head of the mental health services at BDH reported that if there is a need to admit a child or adolescent, they try to give the mental health first care in the paediatric ward and then they transfer the case directly to the referral psychiatric Hospital at 30 km of BDH.

The psychiatric inpatient unit of BDH admitted 89 cases in 2013. The percentage of admissions to this unit that are female is 70%, 28% are male and 2% of children under or equal to 15years. Diagnoses of inpatients are not collected routinely, but some of them are kept individually within individual case files. (Table 7 below)

The average of stay for admission in BDH mental health unit is 10 days per patient in 2013. The head of the mental health unit in Bugesera district reported a limited amount and variety of psychosocial interventions at the District Hospital's MH unit

In 2013, the Mental Health Unit at BDH supported 25 patients regrouped in support groups by providing the minimum consumables such as meals, clothing, cleaning materials … and advocate for them in the local authority for sustainable financial support of their project of agriculture.

3.2.8. Community residential facilities

There are community residential facilities in Bugesera District.

3.2.9. Psychiatric Hospital

There is no psychiatric hospital at this level of district. Bugesera District is 30km from the central referral Psychiatric hospital**.**

3.2.10. Forensic and other residential facilities

In Bugesera district, like in other districts of the country, there is no specific forensic inpatient unit. Patients with mental disorders from the Bugesera district prison are referred to the general hospital mental health unit or internal medicine department for short hospitalizations. If more intensive treatment is needed, they are transferred to the referral Neuropsychiatric Hospital.

There are no specific beds for infants or adolescents in the district hospital's psychiatric unit of Bugesera. The patients who have specific needs for expert treatment are transferred to the Neuropsychiatric hospital or to the mental health department at the University Teaching Hospital.

3.2.11. Human rights and equity

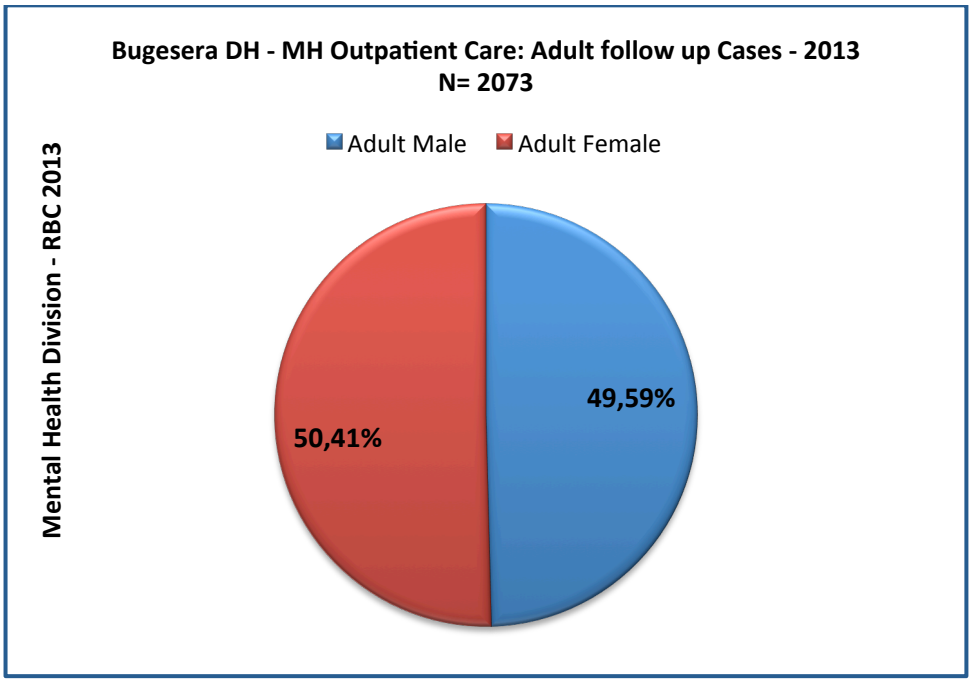
There are limited data available on human rights and equity indicators because there is no supporting mental health law.

No data were available on the percentage of involuntary admissions to the mental health unit at BDH. Based on estimation by the mental health unit staff, around 43% of all admissions to the mental health unit take place at the request of the patients' relatives or at the authorities' request. The majority of new referrals to the inpatient mental health unit are received from Health Centers, where patients often present and are immediately transferred to the district hospital, as is required by the community based health insurance program. The head of the mental health services in Bugesera district reported that 0-1% of patients were restrained or secluded at least once over the last year at the community-based inpatient mental health unit of Bugesera district. The head of mental health services in BDH reported that restraint or seclusion of mental health patients is prevented by the training and sensitization of health professionals in managing acute agitation situations, as well by effective referral pathways for mental health cases in these circumstances.

Data on different population subgroups in term of language, ethnicity, and religion are not collected in Rwanda.

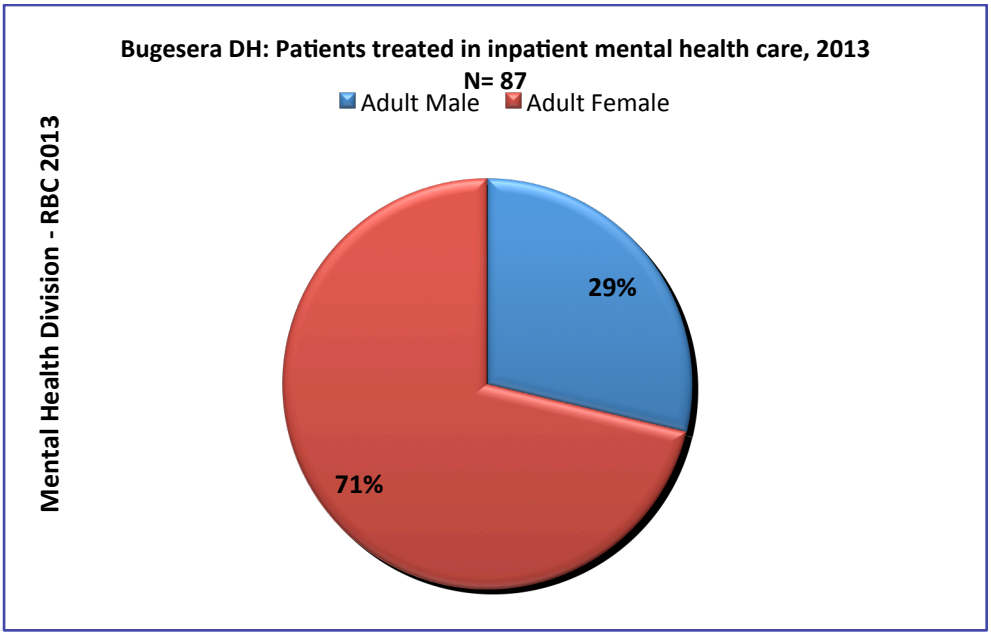
Summary of graphs

Figure 3: Patients followed up in mental health unit/outpatient care of Bugesera District Hospital



Summary of Figure 3: Gender distribution of patients seen in the Bugesera district outpatients unit.

Figure 4: Number of patients treated in inpatient mental health care at BDH in 2013



Summary of Figure 4: Gender distribution of patients treated in inpatients mental health care at BDH in 2013. Of note, there are many more women than men who are admitted to inpatient services.

Figure 5: Patients treated in outpatient's mental health unit per diagnosis in 2013

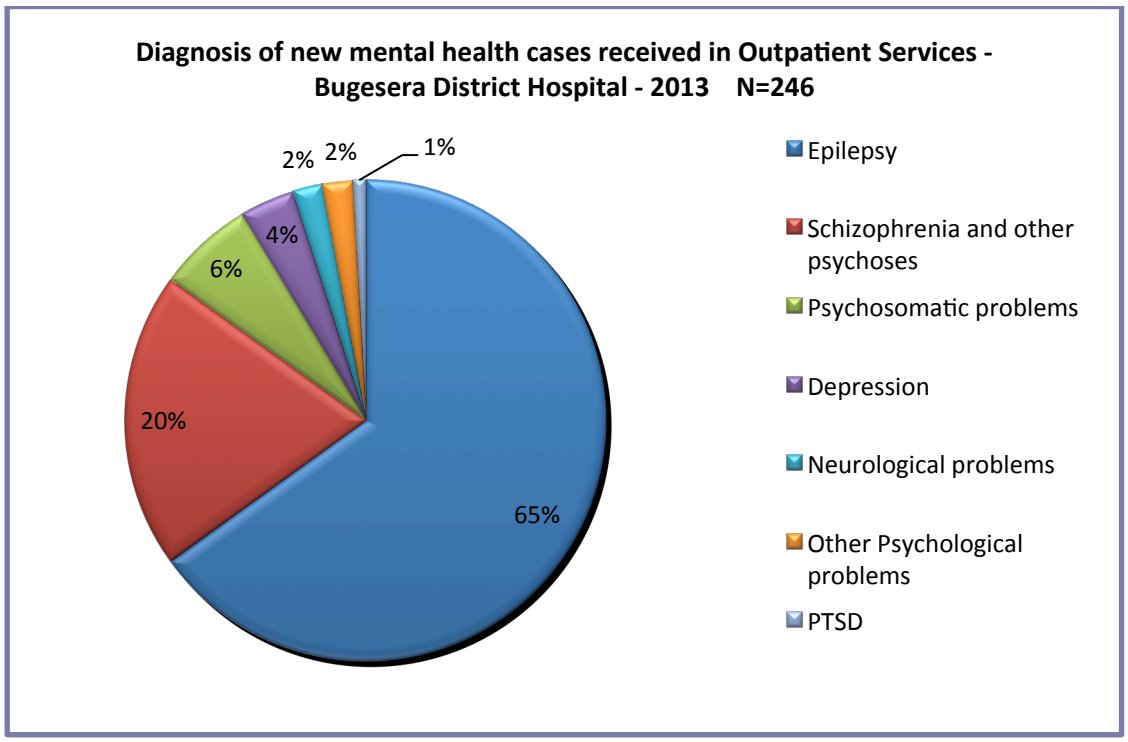


Figure 6: Follow-up mental health cases seen in Outpatient Services - Bugesera District Hospital -2013

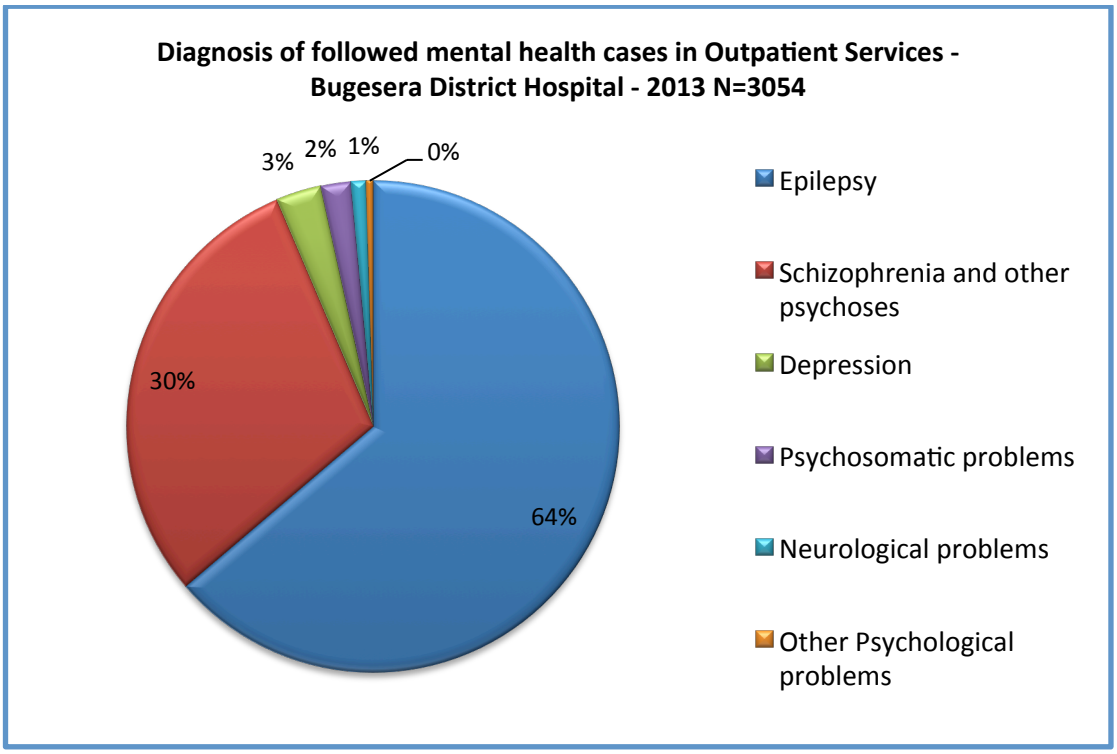


Figure 7: Hospitalized mental health cases, by diagnosis - Bugesera District Hospital – 2013, N=89,

Diagnosis	Mental cases Hospitalized with diagnosis	%

Epilepsy	17	19.1
Schizophrenia and other psychoses	29	32.5
Depression	7	7.8
Psychosomatic problems	2	2.2
Neurological problems	-	
Other Psychological problems	-	
Post-traumatic stress disorder	12	13.4
unknown	22	25
Total	89	100%

In 2013, out of 89 patients admitted into them mental health unit at BDH, only sixty seven per cent of them (75% of all cases) had a specific diagnosis registered in the corresponding clinical file .

The distribution of diagnostic categories in the acute inpatient unit differs somewhat from what we observed in outpatient services. Schizophrenia and other psychoses was the most frequent diagnosis in the inpatient unit, followed by epilepsy patients and PTSD patients.

Summary of figures 5& 6 and 7:

The principal cause of consultation in mental health unit at Bugesera DH (inpatients and outpatients) is epilepsy, and the second most frequent is schizophrenia.

Table 4: Availability of psychotropic medication in mental health unit of BDH in 2013

Availability of essential psychotropic drugs in 2013 at Bugesera DH					
N°	**Common international nomination**	**2013 availability**			
	Anti Epileptic	Quarter 1	Quarter 2	Quarter 3	Quarter 4
1	Phenobarbital (Luminal)	Y	Y	NO	NO
2	Carbamazépine (Tegretol)	Y	Y	Y	Y
3	Valproate de Sodium (Depakine)	Y	Y	Y	Y
4	Valium (Diazepam)	Y	Y	Y	Y
5	Valium inj. (Diazepam)	Y	Y	Y	Y
6	Phenytoine	Y	Y	Y	Y
	Anti Psychotics				
1	Biperden (Akineton)	Y	Y	Y	Y
2	Halopéridol (Haldol)	Y	Y	Y	Y
3	Halopéridol (Haldol)	Y	Y	Y	Y
4	Halopéridol retard	Y	Y	N	Y
5	Chlorpromazine (Largactil)	Y	Y	Y	Y
6	Lévomépromazine (Nozinan)	Y	Y	Y	Y
	Anti depressant				
1	Clomipramine (anafranil)	Y	Y	Y	Y
2	Amitriptylline (Tryptisol)	Y	Y	Y	Y
	Anxiolytics				
1	Clorazépate dipotassique (Tranxène)	Y	Y	Y	Y
2	Alprazolam (xanax)	Y	N	Y	Y
	Others				
1	Cinnarizine (stugeron)	Y	Y	Y	Y
2	Zolpidem(stilnoct)	Y	Y	Y	Y

In the mental health unit (inpatient and outpatient services of BDH) the availability of psychotropic medication is according to the national list of essential psychotropic medication. In 2013 at least one medication of each category of psychotropic medications was available in the mental health services and in the district hospital's pharmacy.

DOMAIN 3: MENTAL HEALTH IN PRIMARY HEALTH CARE

The Bugesera district hospital endorses the importance of integrating mental health into PHC and many activities of capacity building are performed in order to achieve this objective.

3.3.1 Training in mental health care for primary care staff

In Bugesera district, one percent (1%) of all general training in health care for general practitioners is dedicated to mental health, and 15% of general practitioners working in the general hospital in Bugesera District Hospital have received at least five days of training in mental health in 2013. Eight point three percent (8.3 %) of nurses of primary health care have received such training (Table 5 below)

No data were available on the percentage of training time devoted to mental health for other primary health care workers.

Table 5: General health professionals of PHC trained in mental health in BD in 2013

Topic	Beneficiaries	Period of training	Number
Awareness about the mental health problems in the community	Community Health workers	2 days	1162 (2/ village)
Management of common mental health problems	General nurses of Health centers	5 days	12 (1per HC)
Management of common mental health problems	General Nurses of District Hospital	5 days	25 (from emergency services and Internal Medicine

In BDH, the majority of health professionals (general nurses, general practitioners …) trained in mental health is receiving at least 2 days per year of training in the necessary skills for them to support mental health outpatient services.

3.3.2 Assessment and treatment protocols for mental health problems in primary health care

Between 21-50 % of general nurses and general practitioners based in primary health care clinics have some protocol for diagnosis and treatment of key mental health problems.

The head of mental health services in the district hospital adds that the protocols for assessment and treatment are given after training according to the packages of each level of care.

After medical assessment of somatic problems, and giving the first aid services almost all (81-100%) General Practitioners refer most cases to mental health professionals at Bugesera district hospital for advanced assessment, treatment, and follow up orientation.

Referrals between general practitioners and mental health clinicians (psychiatric nurses and clinic psychologists) are mediated by telephone, and treatment planning for patients with co-morbid medical and psychiatric disorders, including inpatient management of patients at Bugesera hospital, is accomplished collaboratively between GPs and mental health professionals. With regard to informal MH carers and MH care deliverers, there is no formal referral strategy at the national level between traditional healers and health professionals, in BD there is no any specific data on these interactions. Most mental health professionals interviewed in this survey responded that traditional healers are sometimes used to help specific patients to reintegrate into their communities or to provide collateral information on background of patients.

3.3.3. Prescription by primary health care doctors

Due to the shortage of MH specialists in the country the Rwandan nursing council adopted a task shifting policy in mental health care. The prescription of psychotropic medication is included within the tasks assigned to non-MD mental health professionals (namely mental health nurses) responsible for the mental health units in general hospitals. General Nurses trained in health facilities are not allowed to initiate prescription, except in emergencies. General nurses are allowed, however, to continue prescription and to hand-out medicines..

Primary Health Care doctors and mental health nurses are allowed to prescribe all medications included in the essential medicines list. General Nurses of HCs trained in mental health are allowed to prescribe in emergencies only, according to the essential drugs list. Respondents from all 15 HCs reported that between 81-100% of the drugs included in the essential drugs

list are available for acute agitation and epileptic seizures, (e.g. Diazepam and Largactil intramuscular injections).

DOMAIN 4: HUMAN RESOURCES

3.4.1 Number of human resources in mental health care

Human resources in the mental health unit at Bugesera district Hospital are limited to 2 nurses specialized in mental health. 14% of general practitioners (doctors) are trained in mental health and they are supporting mental health services at part time, 23% of general nurses from internal medicine and emergency services have been trained in MH. There is no psychiatrist, social assistant, psychologist or occupational therapist.

3.4.2. Training of health professionals in mental health

In 2013, 14% of General Practitioners of Bugesera district hospital were trained over 5 days on the management of common mental health issues, and 23 general nurses received a two day training also on the management of mental health problems and drug abuse related problems. The head of the mental health unit at the general district hospital reported that the general professionals trained in mental health help support part time in outpatients and inpatients services of mental health unit in BDH and support community based interventions.

There is no psychiatrist in the district. The mental health nurses receive monthly professional supervision and mentorship by specialists: Psychiatrist, psychologists and mental health nurses from the referral level. (See table above). There is one psychiatric post-graduate program in the country, which started second year in partnership with European universities. The first class started with five candidates at Geneva and Belgium. The country has a total of 5 psychiatrists, all working in referral institutions in Kigali.

3.4.3 Users and Family Associations

There are no user and family associations in Bugesera district. For the elaboration of the policy, plans or mental health law, there was no participation of the users' or families representatives. However, a national patients' association with 252 members is supported by mental health professionals at the referral services, and is currently in the process of obtaining legal status and representatives in all Districts.

The head of mental health services of BDH confirmed that collaboration with family members to take decisions regarding care, rehabilitation and reintegration of patients occurs regularly in the process of management of mental patients.

The growing users' association at the national level and some family members in Bugesera District are involved in education groups for patients or groups of parents, and are also involved in the implementation of promotional activities (anti-drug abuse campaigns, mental health days, and sensitization and education of community)

In Bugesera district there are five local NGOs involved in implementing policy, in advocating for mental health patients against stigma and discrimination, and in supporting rehabilitation and reintegration of persons with mental disorders and disabilities.

The few NGOs and local associations working in mental health (international: Belgian cooperation, two local associations of survivors and one of youth fighting against drugs abuse) existing in Bugesera district collaborate closely with the mental health unit of the district hospital in the implementation of psychosocial projects. They are involved mainly in individual assistance activities such as counselling, housing, or support groups. Those local NGOs and associations report to the social affairs and health unit of Bugesera district.

DOMAIN 5: PUBLIC EDUCATION AND LINKS WITH OTHER SECTORS

3.5.1. Public education and awareness campaigns on mental health

The Mental health department and health communication departments at the national level compose the coordinating body to oversee public education and awareness campaigns on mental health in Rwanda.

In BD Hospital there is no official association of users but representatives of users are recognized in MH services of BDH, the mental health department collaborates with various local and international NGOs working in mental health, including the representatives of consumers and other professionals, as well as advocacy bodies, to implement the process of mental health plans.

Government agencies and NGOs have promoted public education and awareness campaigns in the last five years in all districts including Bugesera district. In 2013, these agencies have organized the following mental health sensitization and awareness activities in Bugesera district:

- Sensitization session on the national mental health day with representatives of all health care providers from health centers and district hospital health supervisors, and focusing prevention, diagnosis and treatment of common mental health problems in specific groups (elderly people and young people)
- Distribution of sensitization materials in all risk groups (patients groups, solidarity camp, prison, refugee camp, and schools)
- Sensitization in schools and social groups of young people around risks of drug abuse related problems
- Public and media sensitization activities: sensitization in schools, press conference with different journalists representatives of local media, public communications in out-patients services and different campaigns on specific period like mental health day.

These campaigns have targeted the general population, Children and Adolescents of BD, Trauma survivors groups, ex combatants groups, widows and orphans, and drug abusers and ex users. In addition, in 2013, there have been public education and awareness activities on mental health disabilities addressed to health professionals in Bugesera district hospital, as well as training initiatives on how to organize a screening and treatment program for vulnerable people.

3.5.2. Legislative and financial provisions for persons with mental disorders

In Bugesera District there is no official legislative and financial provision to protect and provide support for users:

For the legislative provisions there is a legal obligation for employers to employ a certain percentage of people with disabilities (including mental disabilities);

Although a disability law determining the responsibilities, organization and functioning of the national council of persons with disabilities exists in Rwanda and is still in the process of being implemented in BD, the head of mental health services reported that the provision is not systematically enforced in Bugesera district hospital.

For legislative provisions concerning protection from discrimination (dismissal, lower wages) solely on account of a mental disorder, a specific article exists in the draft law but has not yet been implemented. The head of mental health in BD reported that Bugesera District, in order to ensure the protection of people with mental problems and other vulnerable groups, has been using the penal code articles that provide legal protection to vulnerable groups, while the Rwandan Mental Health law awaits its final approval and regulation.

At the time of the enquiry, there was no legislative or financial support in Rwanda for the following:

- Legislative or financial provisions concerning priority in state housing and subsidized housing schemes for people with severe mental disorders.
- Legislative or financial provisions concerning protection from discrimination in allocation of housing for people with severe mental disorders.

3.5. 3. Links with other sectors

As reported by the head of mental health services of BD, in addition to collaboration with other Health departments at the DH, there are formal collaborations between the social affairs authorities of Bugesera district and other departments/agencies, as indicated in the following table.

The head of the mental health unit highlighted that most collaborations occur to manage specific psychosocial situations of patients with specific problems like drug abuse related issues or sexual abuse, but in BDH there is no formal collaboration agreement between the different existing sectors.

Table 6: Collaborations between mental health and other sectors in Bugesera District in 2013

N0	Domains	
1	Primary Health Care	Yes
2	Community Health	Yes
3	HIV-AIDS program	Yes
4	Reproductive health	Yes
5	Elderly	No
6	Substance Abuse	Yes
7	Gender Based violence	Yes
8	Child protection	No
9	Education	Yes
10	Employment.	No
11	Housing	NA
12	Welfare	Yes
13	Criminal Justice	Yes
14	Child and adolescent Health	Yes

Y = Yes, N = No, NA = Not Applicable, UN = Unknown.

At Bugesera District, in 2013, there were 132 schools (89 primary schools and 43 Secondary schools). In terms of support for child and adolescent, only 20 out of the 43 secondary schools had psychologists to support education programs, awareness activities and support groups of students. There are no psychologists in primary schools.

The percentage of prisoners with mental health disorders in BD penitential facilities is unknown.

Regarding mental health activities in the criminal justice system at Lilima prison located in Bugesera district, the head of the prison's health center reported that at least one prisoner per month is in treatment contact with a mental health professional from the District hospital. As for training, 1-20% of police officers have participated in educational activities on mental health and drug abuse in the last five years in Bugesera district. However, there were no educational activities on mental health for judges or lawyers in Bugesera District during 2013.

In terms of financial support for users, in Bugesera district hospital, some mental health users have been supported by social funds for basic needs from international partners (e.g Belgian cooperation fund).

In Bugesera district, the percentage of people who receive social welfare benefits due to a mental disability is unknown. The Department of Social affairs of Bugesera district does not keep records of the distinction between physical and mental disabilities.

DOMAIN 6: MONITORING AND RESEARCH

In Bugesera District there is a formally defined minimum data set of indicators to be collected at the mental health unit and health centers by a data manager and a mental health professional from the DH.

As shown in table 6.1, the extent of data collection differs between the district hospital - mental health unit, health centers and across the health management information system.

The data manager at the district Hospital receives data from the mental health unit at the district hospital, as well as from all health centers. However, all reports produced on mental health data are transmitted to the government health information system department for management.

In terms of research, there is no specific publication done on mental health issues in 2013 by people or institutions from Bugesera district, except for the 2013 health report of BDH which has been published on the Bugesera district website.

The mental health division at the Ministry of Health develops a list of mental health indicators to be integrated at all levels of health facilities and data are collected monthly by local data managers and assessed quarterly by a data quality assessment team provided to the referral level.

3.6.1. Type of information compiled

In 2013, the mental health unit of BDH compiled the following data for all patients received and managed in mental health services of DH:

1. Total numbers of patients received in outpatient services,
2. Total number admitted to inpatient services in Bugesera district hospital,
3. Total number discharged patients,
4. Which action taken,
5. Length of stay of acute hospitalization,
6. Diagnosis and treatment received,

7. Identification of patients and responsible contact person.

The district hospital also compiled information on other activities of mental health in the district, for example:

- Number of sensitization and public education trainings done,
- Number of supervision and mentorships done,
- Availability of psychotropic drugs in mental health units,
- Number of community mental health interventions done,
- Number of patients received for drug abuse related problems, HIV, suicide and Gender Based Violence.

Table 7: Type of information collected in mental health by Health Facility in BD- 2013

Type of information collected	**Mental Health unit of DH**		**Estimation of % of Health centres that collect data regularly**
	Outpatient services	**Inpatients services**	
Number of mental health patients received, HIV, drug abuse related, suicide & GBV (NC&OC)	100%	100%	25% (there is data for MH and HIV only)
Number of inpatient admissions /users treated in outpatient facilities	100%	100%	100% of cases treated in outpatient services are recorded
Transfers	100%	100%	100%
N° of days spent/user contacts in outpatient facilities	NA	100%	NA
Diagnosis	Tentative diagnosis	25%	25% according to the classification indicators
Contacts of patients received and contacts of responsible person	100%	100%	100%
Care decision taken	100%	100%	100%
Number of trainings and supervision done	100%	100%	100%

Psychotropic medication available in period of time	100%	100%	UN (according to the Essential list of medicines
N° of Sensitization and public education sessions done	100%	100%	100%
N°of Health professionals trained in MH	100%	100%	100%

After analysing the reports of health facilities, we found that 100% of the data collected in mental health unit of BDH are reported according to the list of indicators above, and 100% of health centers of Bugesera district are reporting only 80% of the required indicators.

According to the results of the study, in 2013, health professionals in all the HCs included in the study mostly fail to adequately report the indicators about the specific diagnoses of patients received at each HC.

The supervisor of Health centers in BDH expressed low capacity to make mental diagnosis, especially when patients present with somatic symptoms

CHAPTER IV

DISCUSSION, CONCLUSION AND RECOMMENDATION

4.1. Discussion

The study shows that since 2010, the current revised five year strategic plan and mental health policy in Rwanda focuses primarily on the decentralization and integration of mental health care into district health system, and the country's draft mental health law is still in the process of validation by the government. Using the case study of one semi-rural district, the policy has primarily been implemented through increases and improvements of services at the district hospital level, less so the primary cares system in the district.

The study shows that the integration efforts of mental health care in general care of BDH remain primarily focused on the emergency management of psychiatric patients and ongoing psychopharmacological care of patients with chronic stabilized mental disorders.

In Rwanda there is a draft Mental Health Law in process of validation which could help the process of creation and management of mental health services.

The MH law could be an occasion to keep with international human rights standards in mental health services.

Funding gap

The percentage of government health expenditure devoted to mental health is not known at a national level. Bugesera District Hospital is not able to report on mental health budget because the financing of mental health activities is totally integrated into general health budgets particularly at primary care level. For this study we have tried to estimate the expenditures of mental health activities compared with the expenditures of all health activities of Bugesera District (See in Table 1). Mental health expenditures correspond to 4% of the total of the BDH budget.

The study found that the main budget expenditures consist of inpatient and outpatient mental health service provision, capacity building and purchasing of psychotropic drugs. There are no expenditures of psychosocial activities, reintegration or rehabilitation services in the community.

The budget assigned to mental health is very low comparing to the total budget in BDH (3.8% of the general health budget). There is a mismatch between the overall weight of mental health problems in terms of disease burden and the weight of the mental health budget within the global health budget.

Human resources gap

Resources included in this study are policy, mental health services, community resources, human resources and funding. The study found mainly that there is no sufficient access to the mental health care as the district has insufficient resources for mental health generally, and no specific mental health care services in the community.

Human Resources for mental health care are still limited because there are only 2 psychiatric nurses for around 314 892 inhabitants equal to 0.6 per 100000 population and no psychiatrist and no psychologist in the unit; Chisholm et al. (2007) estimate the target human resource requirements to treat schizophrenia, bipolar affective disorder, depressive episode and hazardous alcohol use to be 0.5 psychiatrists and 1.0 psychologist per 100 000 population and 2.0 psychiatric nurses per 100 000 population .

In Bugesera District there are limited human resources in mental health services to implement mental health activities at all levels of the district. Only two specialized mental health nurses are available in the district , who are responsible for implementing and coordinating all mental health treatment, prevention and promotional activities of the district of 314 892 habitants. Even though they receive some support from general health professionals trained in MH, their workload is overwhelming and human resources for mental health are evidently insufficient.

There is no psychiatrist in Bugesera district hospital; the seven psychiatrists working in Rwanda are all placed in central referral hospitals in the capital. There are no social workers or occupational therapists at Bugesera district. Shortages of psychiatrists, psychiatric nurses, psychologists and social workers are an important barrier to the adequate provision of MH treatment and care in Bugesera district. What this study shows is important. The mean ratio of psychiatrists and psychiatric nurses in low-income countries is 0.05and 0.16 per 100,000 populations, respectively (30). The corresponding figures for BDH are approximately 200 times lower. 76% of countries (covering 86% of the world's population) have less than one

psychiatric nurse per 100,000 populations. These figures demonstrate the huge inequity in the distribution of skilled human resources for mental health across the country.

Mental health is part of the Continuous development program of health professionals, both specialist and general staff. However mental health training should be enhanced by targeting CHWs.

Although there is some health professionals trained in mental health within the district, there is no professional supervision or formal continuing education for this staff. In order to assure minimum quality of MH services using task shifting strategy in the integration of mental health care in the general health care, health professionals trained in mental health should receive continuous and training, mentorship and supervision for making diagnoses and drug prescriptions (21, 22).

This study shows that the district has a low proportion of human resources in the community and this can illustrate and confirm the double disadvantage facing mental health in low-income countries: poor countries spend a lower proportion of their already scarce resources on mental health.

Treatment gap

The Mental health division in the Ministry of Health is responsible for mental health in Rwanda and is in charge of the implementation of mental health policy. There is only one mental health service in Bugesera district located in the general district hospital with outpatients and inpatients services and in 2013 year the service received 3312 patients, equivalent to 1052 patients/100.000 habitants from health centers and community level.

Our results uncover a huge MH treatment gap in the district. This is well illustrated by the figures regarding schizophrenia diagnosis and treatment: assuming a prevalence of 1% in the general population, one would expect around 3000 persons with schizophrenia to exist in the district.

The study shows that the outpatient services of DH performed 920 consultations in 2013 of patients with schizophrenia. This means that even if each patient with schizophrenia only went to the clinic once in 2013, there would still be close to 2000 patients with schizophrenia with no specialized care of any sort and no contact with MH services whatsoever.

PTSD does not even figure in the numbers of the outpatient clinic, and the HC do not seem to be dealing with these patients either, which is surprising given the well-known, unusual prevalence of this disorder in the country. Even more surprising, according to the data collected for the study only 18 people with psychological / MH problems were seen at Health Centers in Bugesera District in 2013. Health centres of BD reported 58 people with epilepsy and mental disorders in 2013 equivalent to 18 visits per 100 000 habitants.

The most frequent diagnosis in patients received in BDH is epilepsy followed by psychosis. The least frequently reported diagnosis is PTSD, which cannot be explained by a low frequency of PTSD in Rwanda, since the prevalence known of PTSD in Rwanda is 28.5 per cent among the general population. Around Fifty four (54%) of traumatized people suffer also from depression (11), and the prevalence of major depression was estimated at 15.5% by a study conducted in a rural area which also emphasized that depressive symptoms were strongly associated with functional impairment in performing most daily tasks(1).

Another flagrant case is PTSD as we see above, the study revealed that the prevalence of PTSD is a significant public mental health problem in the country and a reflection of the country's recent History, is close to 26%. As discussed by the head of mental health unit of Bugesera District, the insignificant number Post-Traumatic Stress Disorder cases reported in 2013 by BDH can be explained by the :

- symptoms of PTSD which can be infiltrated in other somatic symptoms and patients are not well orientated in health services,

- patients also with signs of PTSD can start with traditional healers services, church's or general practitioner and not reported in mental health unit,

- patients with PTSD can initially present with other comorbidities like, psychosomatic disorders, depression or epileptic seizures , and may therefore be missed as PTSD cases.

- Insufficient capacity of health professionals to correctly diagnose PTSD.

Task-shifting: Community based care and integration into primary care

The number of dedicated psychiatric beds at the BDH/mental health unit is reflective of the national average, estimated by the WHO to be 3.8 per 100 000 population (WHO 2005b). The district as a whole has 4.4 and the sub-district 3.3 dedicated psychiatric beds per 100 000 population.

There are no psychosocial support services and no community based services for rehabilitation and reintegration of MH patients with chronic mental illness. The Mental Health professional at BDH said that the most of their time is spent distributing medication. She suggested that CHWs with sufficient skills could contribute in community based rehabilitation and reintegration of mental patients. Currently their role is limited to case detection and case referral. In the future these health workers could be trained to be able to follow up chronic, stable patients and their families.

There is no effective database and information system to accurately evaluate the availability of resources (financial and human resources according to the needs)

There is a need for sensitization and training of other sectors such as education, social development, criminal justice, housing, employment. Evidence from this report indicates that while some training does occur, it is frequently not monitored and evaluated, and where training of PHC staff takes place, it is not supported by ongoing supervision and the establishment of referral pathways to and from specialist mental health care.

The experience for effective task-shifting and/or task sharing shows that many of the required skills and tasks of care can be learned and delivered by a range of non-specialist health workers with appropriate training and supervision (32).

There is currently a lack of clinical protocols at PHC level.

There is an urgent need to establish formal consumer and family associations, possibly with the support of NGOs already operating in the field, and to support the initiatives of patients to contribute in the planning and implementation of services which is still limited in Bugesera District.

There are no intermediary community based services in Bugesera District and no mental health residential facilities in BD. Moreover, psychosocial support interventions are extremely limited in both frequency and scope. The community level should include rehabilitation programmes within available resources.

Notwithstanding the severe shortcomings of Mental Health Services in Bugesera District, there are several strengths that merit mention. Compared to many other districts, BDH perform trainings of primary care health professionals in MH and common mental disorders should be managed by primary care professionals already permeated the minds and opinions of workers in the field, MH services receive enough funding for the tasks they have been assigned, and psychotropic medication provision is adequate.

In order to continue the process of comprehensive integrated primary mental health care in BDH, an injection of sustainable human resources s into the primary health care package is required, as well as a more efficient use of currently existing resources

Limitation of the study

The main limitation in this study was the using of routine data collected in the registers of mental health services. If data were not recorded accurately at the time of entry, or if errors were done at retrospective collection of data for this study, the results of the data analysis could be inaccurate and provide misinformation for policy decision makers.

Moreover, there are likely reporting biases in the information conveyed by health professionals interviewed for the study. Information are essentially based on personal estimation and are thus permeable to personal opinions and views regarding the health system, to expectations and fears regarding corporative interests of professionals, and fears of possible retaliation as a consequence of openly criticizing the system and hierarchies.

The results cannot be generalized on the national wide, so advanced study will be needed to have the picture of the situation of mental health services in overall health system.

4.2. Conclusion

Mental health in Rwanda is a public health priority and is in the process of integrating mental health services in decentralized services. The country has already initiated many efforts to advocate for resources and public awareness on mental health issues. Many efforts have been put into improving services in Bugesera district.

Yet there are still significant limitations in current staffing and in the quality of mental health care, including especially residential outpatient services for rehabilitation and reintegration, and of psychosocial groups for education of users in community. Furthermore, the mental health unit at the district hospital needs other human resources in mental health for counselling, social support and reintegration process like: psychologists, social workers, and occupational therapists.

The mental health services still need a legal guiding document for the implementation of mental health policy, to create norms and standards for the development of mental health services. e.g.: the need of minimum of physical conditions and human resources to manage mental health services, and for the monitoring and evaluation of the services.

In Bugesera district there is a need to increase financial and human resources allocated to mental health in primary health care in order to minimize MH care gap, the transfers to mental health unit of BD and the central neuropsychiatric hospital. Filling the gap will facilitate the accessibility, adherence to mental health treatment, continuity of care, and ~~to~~ will ensure equity in mental health care delivery.

4.3. Recommendations

In order to strengthen the Mental Health System in Bugesera District, we suggest the following strategies:

- We suggest that the country should increase capacities of decentralized levels of mental health services between the district and referral psychiatric hospital. This can be implemented by assigning in each province one of the psychiatrists currently working at the capital city and should organize and coordinate all mental health services at this level.

- Develop community based mental health services to improve the management of chronic mental cases in community

- Set up specific units and beds for children and adolescents in order to facilitate their accessibility to age-appropriate Mental Health care,

- Facilitate the development of a mental health unit in the local prison in order to minimize the risk of stigma and discrimination of prisoners with mental health problems and facilitate their medical care

- The Ministry of Health should support the implementation of the law to facilitate the creation and management of MH services,

- Conduct and evaluate training programs for general health staff at PHC level.

- Ensure the integration of mental health basic skills in overall training programs of health professionals to minimize the cost of short courses of health professionals.

- Strengthen supporting activities of mental health team to train PHC staff

- The Ministry of Health via mental health division should conduct an assessment to identify inequities in current staffing in mental health system and what best way to allocate equitably the existing resources and to complete the MH team with social workers, occupational therapists.

- Develop clinical protocols for assessment and interventions at PHC level.

- Strengthen the role of consumer and family associations in policy planning, implementation, as well as monitoring of services.

- Carry out an assessment of value of mental health services at national level including the contribution of partners in district level, and in which priorities they should spend resources in order to improve the planning process and meet the needs of the population.

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